

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference 060958woCSgn	FOR FURTHER ACTION	See item 4 below
International application No. PCT/EP2006/061725	International filing date (<i>day/month/year</i>) 21 April 2006 (21.04.2006)	Priority date (<i>day/month/year</i>) 22 April 2005 (22.04.2005)
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237		
Applicant FUCHS, Martin		

1.	This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).																								
2.	This REPORT consists of a total of 7 sheets, including this cover sheet. In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.																								
3.	<p>This report contains indications relating to the following items:</p> <table style="width: 100%;"> <tr> <td style="width: 10%; text-align: center;"><input checked="" type="checkbox"/></td> <td style="width: 30%;">Box No. I</td> <td style="width: 60%;">Basis of the report</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. II</td> <td>Priority</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. III</td> <td>Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. IV</td> <td>Lack of unity of invention</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Box No. V</td> <td>Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. VI</td> <td>Certain documents cited</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. VII</td> <td>Certain defects in the international application</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Box No. VIII</td> <td>Certain observations on the international application</td> </tr> </table>	<input checked="" type="checkbox"/>	Box No. I	Basis of the report	<input type="checkbox"/>	Box No. II	Priority	<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability	<input type="checkbox"/>	Box No. IV	Lack of unity of invention	<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement	<input type="checkbox"/>	Box No. VI	Certain documents cited	<input type="checkbox"/>	Box No. VII	Certain defects in the international application	<input checked="" type="checkbox"/>	Box No. VIII	Certain observations on the international application
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4.	The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).																								

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No. +41 22 338 82 70	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;">Date of issuance of this report 23 October 2007 (23.10.2007)</td> </tr> <tr> <td style="padding: 2px;"> Authorized officer <div style="text-align: right; font-weight: bold;">Ellen Moyse</div> </td> </tr> </table> e-mail: pt05.pct@wipo.int	Date of issuance of this report 23 October 2007 (23.10.2007)	Authorized officer <div style="text-align: right; font-weight: bold;">Ellen Moyse</div>
Date of issuance of this report 23 October 2007 (23.10.2007)			
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PATENT COOPERATION TREATY

TRANSLATION

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To:

Date of mailing **See form PCT/ISA/210**
(day/month/year)

Applicant's or agent's file reference
060958woCSgn

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/EP2006/061725

International filing date (day/month/year)
21.04.2006

Priority date (day/month/year)
22.04.2005

International Patent Classification (IPC) or both national classification and IPC
C02F11/02, C02F3/12

Applicant
FUCHS, Martin

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/EP	Date of completion of this opinion	Authorized officer
Facsimile No.		Telephone No.

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/EP2006/061725

Box No. I

Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of:



the international application in the language in which it was filed



the translation of the international application into _____, which is the language of a translation furnished for the purposes of international search (Rule 12.3(a) and 23.1(b)).

2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

a. type of material



a sequence listing



table(s) related to the sequence listing

b. format of material



on paper



in electronic form

c. time of filing/furnishing



contained in the international application as filed



filed together with the international application in electronic form



furnished subsequently to this Authority for the purposes of search

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/EP2006/061725

Box No. V	Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement		
1. Statement			
Novelty (N)	Claims	<u>8, 10, 11, 14</u>	YES
	Claims	<u>1-7, 9, 12, 13, 15</u>	NO
Inventive step (IS)	Claims	<u>-</u>	YES
	Claims	<u>1-15</u>	NO
Industrial applicability (IA)	Claims	<u>1-15</u>	YES
	Claims	<u>-</u>	NO
2. Citations and explanations:			
1. Reference is made to the following documents:			
D1: EP-A-0 384 162			
D2: GB-A-2 105 318			
D3: DE-A-32 40 009			
D4: US-A-5 948 261.			
2. The present application does not meet the requirements of PCT Article 33(1) because the subject matter of claims 1 and 12 are not novel within the meaning of PCT Article 33(2). The reasons are as follows:			
<p>Document D1 discloses a method for the decontamination and thermophilic stabilization of thickened sewage sludge (see references cited in the search report). The sludge preferably having 4-8% dry matter is brought up to the thermophilic temperature range of > 50°C in a first stage A by aerobic degradation in the course of 2-4 days. Charging proceeds continuously. Then follows a second stage B in which the sludge is decontaminated by further aerobic degradation at > 55°C. The</p>			

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/EP2006/061725

Box No. V

Reasoned statement under Rule 43bis1(a)(i) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

subject matter of claim 1 is therefore not novel over D1.

In addition, D1 teaches carrying out the said stages A and B in separate vessels. However, the definition in the device claim 12 is also met thereby, that different vessels shall be provided for the stages. The "transport unit" mentioned in the claim results implicitly from D1, since the stages A and B are connected one after the other and sludge passes through them successively. Therefore, the subject matter of claim 12 is likewise not novel over D1.

D2 also anticipates the subject matter of claim 12. The chambers 10 and 12 in D2 correspond to the vessels of claim 12, and the valve 40 represents the transport unit. In addition, D3 anticipates the novelty of claim 12, since D3 equally discloses two different vessels, that is to say gas-treatment reactors 1 and 10, between which according to fig. 1 is connected a transport pump (see references cited in the search report).

In addition, the inventive step of claim 1 appears, moreover, to be questionable in light of the disclosures in D2 and D3 (EPC Article 56). Although the feature of a dry matter proportion of 3-7% by weight in the untreated sludge is not explicitly mentioned in D2 or D3, it must, however, be assumed that the prior art proceeds from sludge having at least similar dry matter proportions. Also it has not been demonstrated that the selection of this

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/EP2006/061725

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interval for the dry matter proportion demonstrates a surprising technical effect.

3. Dependent claims 2-11 and 13-15 do not contain any features which, in combination with the features of any claim to which they refer, meet the PCT requirements for novelty and inventive step, see documents D1-D4 and the corresponding text passages cited in the search report. For the feature of claim 11, no technical effects have been described which would justify an inventive step.

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/EP2006/061725

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

The application does not meet the requirements of PCT Article 6 because claims 5 and 7 are not clear. Claim 5 establishes a difference in time of up to 12 h between two charges of the first stage. It appears unclear how under this circumstance the method according to independent claim 1 can still be defined as "semicontinuous" or even "continuous". The same objection applies to claim 7, which also depends on claim 1. In addition, it is unclear in claim 7 to what the expression "introduction" refers (into which stage?).

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Date of issuance of this report 23 October 2007 (23.10.2007)	Authorized officer Ellen Moyse				
e-mail: pt05.pct@wipo.int					

VERTRAG ÜBER DIE INTERNATIONALE ZUSAMMENARBEIT AUF DEM GEBIET DES PATENTWESENS

Absender: INTERNATIONALE RECHERCHENBEHÖRDE

An:

siehe Formular PCT/ISA/220

PCT

SCHRIFTLICHER BESCHIED DER INTERNATIONALEN RECHERCHENBEHÖRDE (Regel 43bis.1 PCT)

Absendedatum
(Tag/Monat/Jahr)
21.04.2006

siehe Formular PCT/ISA/
210 (Blatt 2)

Aktenzeichen des Anmelders oder Anwalts
siehe Formular PCT/ISA/220

WEITERES VORGEHEN
siehe Punkt 2 unten

Internationales Aktenzeichen
PCT/EP2006/061725

Internationales Anmeldedatum (Tag/Monat/Jahr)
21.04.2006

Prioritätsdatum (Tag/Monat/Jahr)
22.04.2005

Internationale Patentklassifikation (IPC) oder nationale Klassifikation und IPC
INV. C02F11/02 C02F3/12

Anmelder
FUCHS, Martin

1. Dieser Bescheid enthält Angaben zu folgenden Punkten:

- ☒ Feld Nr. I Grundlage des Bescheids
- ☐ Feld Nr. II Priorität
- ☐ Feld Nr. III Keine Erstellung eines Gutachtens über Neuheit, erfinderische Tätigkeit und gewerbliche Anwendbarkeit
- ☐ Feld Nr. IV Mangelnde Einheitlichkeit der Erfindung
- ☒ Feld Nr. V Begründete Feststellung nach Regel 43bis.1 a) I) hinsichtlich der Neuheit, der erfinderischen Tätigkeit und der gewerblichen Anwendbarkeit; Unterlagen und Erklärungen zur Stützung dieser Feststellung
- ☐ Feld Nr. VI Bestimmte angeführte Unterlagen
- ☐ Feld Nr. VII Bestimmte Mängel der internationalen Anmeldung
- ☒ Feld Nr. VIII Bestimmte Bemerkungen zur internationalen Anmeldung

2. WEITERES VORGEHEN

Wird ein Antrag auf internationale vorläufige Prüfung gestellt, so gilt dieser Bescheid als schriftlicher Bescheid der mit der internationalen vorläufigen Prüfung beauftragten Behörde ("IPEA"); dies trifft nicht zu, wenn der Anmelder eine andere Behörde als diese als IPEA wählt und die gewählte IPEA dem internationalen Büro nach Regel 66.1bis b) mitgeteilt hat, dass schriftliche Bescheide dieser internationalen Recherchenbehörde nicht anerkannt werden.

Wenn dieser Bescheid wie oben vorgesehen als schriftlicher Bescheid der IPEA gilt, so ist der Anmelder aufgefordert, bei der IPEA vor Ablauf von 3 Monaten ab dem Tag, an dem das Formblatt PCT/ISA/220 abgesandt wurde oder vor Ablauf von 22 Monaten ab dem Prioritätsdatum, je nachdem, welche Frist später abläuft, eine schriftliche Stellungnahme und, wo dies angebracht ist, Änderungen einzureichen.

Weitere Optionen siehe Formblatt PCT/ISA/220.

3. Nähere Einzelheiten siehe die Anmerkungen zu Formblatt PCT/ISA/220.

Name und Postanschrift der
internationalen Recherchenbehörde



Europäisches Patentamt
D-80298 München
Tel. +49 89 2399 - 0 Tx: 523656 epmu d
Fax: +49 89 2399 - 4465

Datum der Fertigstellung
dieses Bescheids

siehe Formular
PCT/ISA/210

Bevollmächtigter Bediensteter

Beckmann, O

Tel. +49 89 2399-7052



Feld Nr. 1. Grundlage des Bescheids

1. Hinsichtlich der **Sprache** beruht der Bescheid auf
 - ☒ der internationalen Anmeldung in der Sprache, in der sie eingereicht wurde
 - ☐ einer Übersetzung der internationalen Anmeldung in die folgende Sprache , bei der es sich um die Sprache der Übersetzung handelt, die für die Zwecke der internationalen Recherche eingereicht worden ist (Regeln 12.3 a) und 23.1 b)).
2. Hinsichtlich der **Nucleotid- und/oder Aminosäuresequenz**, die in der internationalen Anmeldung offenbart wurde und für die beanspruchte Erfindung erforderlich ist, ist der Bescheid auf folgender Grundlage erstellt worden:
 - a. Art des Materials
 - ☐ Sequenzprotokoll
 - ☐ Tabelle(n) zum Sequenzprotokoll
 - b. Form des Materials
 - ☐ in Papierform
 - ☐ in elektronischer Form
 - c. Zeitpunkt der Einreichung
 - ☐ in der eingereichten internationalen Anmeldung enthalten
 - ☐ zusammen mit der internationalen Anmeldung in elektronischer Form eingereicht
 - ☐ bei der Behörde nachträglich für die Zwecke der Recherche eingereicht
3. ☐ Wurden mehr als eine Version oder Kopie eines Sequenzprotokolls und/oder einer dazugehörigen Tabelle eingereicht, so sind zusätzlich die erforderlichen Erklärungen, dass die Information in den nachgereichten oder zusätzlichen Kopien mit der Information in der Anmeldung in der eingereichten Fassung übereinstimmt bzw. nicht über sie hinausgeht, vorgelegt worden.
4. Zusätzliche Bemerkungen:

**SCHRIFTLICHER BESCHEID DER
INTERNATIONALEN RECHERCHEBEHÖRDE**

Internationales Aktenzeichen
PCT/EP2006/061725

**Feld Nr. V Begründete Feststellung nach Regel 43b/s.1 a) i) hinsichtlich der Neuheit, der
erfinderischen Tätigkeit und der gewerblichen Anwendbarkeit; Unterlagen und Erklärungen zur
Stützung dieser Feststellung**

1. Feststellung

Neuheit	Ja: Ansprüche 8,10,11,14 Nein: Ansprüche 1-7,9,12,13,15
Erfinderische Tätigkeit	Ja: Ansprüche - Nein: Ansprüche 1-15
Gewerbliche Anwendbarkeit	Ja: Ansprüche: 1-15 Nein: Ansprüche: -

2. Unterlagen und Erklärungen:

siehe Beiblatt

Feld Nr. VIII Bestimmte Bemerkungen zur internationalen Anmeldung

Zur Klarheit der Patentansprüche, der Beschreibung und der Zeichnungen oder zu der Frage, ob die Ansprüche in vollem Umfang durch die Beschreibung gestützt werden, ist folgendes zu bemerken:

siehe Beiblatt

Zu Punkt V

Begründete Feststellung hinsichtlich der Neuheit, der erfinderischen Tätigkeit und der gewerblichen Anwendbarkeit; Unterlagen und Erklärungen zur Stützung dieser Feststellung

1. Es wird auf die folgenden Dokumente verwiesen:

D1: EP-A-0 384 162

D2: GB-A-2 105 318

D3: DE-A-32 40 009

D4: US-A-5 948 261.

2. Die vorliegende Anmeldung erfüllt nicht die Erfordernisse des Artikels 33(1) PCT, weil der Gegenstand der Ansprüche 1 und 12 im Sinne von Artikel 33(2) PCT nicht neu ist. Die Gründe hierfür sind wie folgt:

Dokument D1 offenbart ein Verfahren zur Entseuchung und thermophilen Stabilisierung von eingedicktem Klärschlamm (siehe im Recherchenbericht zitierte Stellen). Der Schlamm von vorzugsweise 4-8 % TS wird in einer ersten Stufe A durch aeroben Abbau innerhalb von 2-4 Tagen bis in den thermophilen Temperaturbereich von > 50°C gebracht. Die Beschickung erfolgt kontinuierlich. Dann folgt eine zweite Stufe B, in der der Schlamm durch weiteren aeroben Abbau bei > 55°C entseucht wird. Der Gegenstand des Anspruchs 1 ist daher nicht neu gegenüber D1.

Desweiteren lehrt D1 die Durchführung der genannten Stufen A und B in getrennten Behältern. Damit ist jedoch auch die Definition im Vorrichtungsanspruch 12 erfüllt, dass für die Stufen verschiedene Behälter vorgesehen sein sollen. Die im Anspruch erwähnte "Fördereinrichtung" ergibt sich aus D1 implizit, da die Stufen A und B hintereinandergeschaltet sind und nacheinander vom Schlamm durchlaufen werden. Daher ist der Gegenstand des Anspruchs 12 ebenfalls nicht neu gegenüber D1.

Auch D2 nimmt den Gegenstand des Anspruchs 12 vorweg. Die Kammern 10 und 12 in D2 entsprechen den Behältern des Anspruchs 12, und das Ventil 40 stellt die Fördereinrichtung dar. Weiterhin steht D3 dem Anspruch 12 neuheitsschädlich

entgegen, da D3 gleichermaßen zwei verschiedene Behälter - nämlich Begasungsreaktoren 1 und 10 - offenbart, zwischen denen laut Fig. 1 eine Förderpumpe geschaltet ist (siehe im Recherchenbericht zitierte Stellen).

Darüber hinaus scheint im übrigen auch die erfinderische Tätigkeit des Anspruchs 1 im Lichte der Offenbarungen in D2 und D3 fraglich (Artikel 56 EPÜ). Obgleich nämlich das Merkmal eines Trockensubstanzanteils von 3-7 Gew.-% im Rohschlamm nicht explizit in D2 oder D3 erwähnt wird, so muss doch davon ausgegangen werden, dass der Stand der Technik von Schlamm mit zumindest ähnlichen Trockensubstanzanteilen ausgeht. Es wurde auch nicht gezeigt, dass die Auswahl dieses Intervalls für den Trockensubstanzanteil eine überraschende technische Wirkung zeitigt.

3. Die abhängigen Ansprüche 2-11 und 13-15 enthalten keine Merkmale, die in Kombination mit den Merkmalen irgendeines Anspruchs, auf den sie sich beziehen, die Erfordernisse des PCT in Bezug auf Neuheit bzw. erfinderische Tätigkeit erfüllen, siehe die Dokumente D1-D4 und die entsprechenden im Recherchenbericht angegebenen Textstellen. Für das Merkmal des Anspruchs 11 wurden keine technischen Effekte beschrieben, die eine erfinderische Tätigkeit begründen würden.

Zu Punkt VIII

Bestimmte Bemerkungen zur internationalen Anmeldung

Die Anmeldung erfüllt nicht die Erfordernisse des Artikels 6 PCT, weil die Ansprüche 5 und 7 nicht klar sind. Anspruch 5 legt einen zeitlichen Abstand von bis zu 12 h zwischen zwei Beschickungen der ersten Stufe fest. Es erscheint unklar, wieso unter diesem Umstand das Verfahren gemäß dem unabhängigen Anspruch 1 noch als "quasi-kontinuierlich" oder gar "kontinuierlich" definiert werden kann. Der gleiche Einwand ergibt sich für Anspruch 7, der auch von Anspruch 1 abhängt. Zudem ist in Anspruch 7 unklar, worauf sich der Begriff "Einbringung" bezieht (in welche Stufe?).

PATENT COOPERATION TREATY

TRANSLATION

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To:

Date of mailing **See form PCT/ISA/210**
(day/month/year)

Applicant's or agent's file reference
060958woCSgn

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/EP2006/061725

International filing date (day/month/year)
21.04.2006

Priority date (day/month/year)
22.04.2005

International Patent Classification (IPC) or both national classification and IPC
C02F11/02, C02F3/12

Applicant
FUCHS, Martin

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/EP

Date of completion of this opinion

Authorized officer

Facsimile No.

Telephone No.

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/EP2006/061725

Box No. I

Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of:



the international application in the language in which it was filed



the translation of the international application into _____, which is the language of a translation furnished for the purposes of international search (Rule 12.3(a) and 23.1(b)).

2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

a. type of material



a sequence listing



table(s) related to the sequence listing

b. format of material



on paper



in electronic form

c. time of filing/furnishing



contained in the international application as filed



filed together with the international application in electronic form



furnished subsequently to this Authority for the purposes of search

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/EP2006/061725

Box No. V	Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement		
1. Statement			
Novelty (N)	Claims	8, 10, 11, 14	YES
	Claims	1-7, 9, 12, 13, 15	NO
Inventive step (IS)	Claims	-	YES
	Claims	1-15	NO
Industrial applicability (IA)	Claims	1-15	YES
	Claims	-	NO
2. Citations and explanations:			
<p>1. Reference is made to the following documents:</p> <p style="margin-left: 40px;">D1: EP-A-0 384 162</p> <p style="margin-left: 40px;">D2: GB-A-2 105 318</p> <p style="margin-left: 40px;">D3: DE-A-32 40 009</p> <p style="margin-left: 40px;">D4: US-A-5 948 261.</p>			
<p>2. The present application does not meet the requirements of PCT Article 33(1) because the subject matter of claims 1 and 12 are not novel within the meaning of PCT Article 33(2). The reasons are as follows:</p> <p style="margin-left: 40px;">Document D1 discloses a method for the decontamination and thermophilic stabilization of thickened sewage sludge (see references cited in the search report). The sludge preferably having 4-8% dry matter is brought up to the thermophilic temperature range of > 50°C in a first stage A by aerobic degradation in the course of 2-4 days. Charging proceeds continuously. Then follows a second stage B in which the sludge is decontaminated by further aerobic degradation at > 55°C. The</p>			

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/EP2006/061725

Box No. V

Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

subject matter of claim 1 is therefore not novel over D1.

In addition, D1 teaches carrying out the said stages A and B in separate vessels. However, the definition in the device claim 12 is also met thereby, that different vessels shall be provided for the stages. The "transport unit" mentioned in the claim results implicitly from D1, since the stages A and B are connected one after the other and sludge passes through them successively. Therefore, the subject matter of claim 12 is likewise not novel over D1.

D2 also anticipates the subject matter of claim 12. The chambers 10 and 12 in D2 correspond to the vessels of claim 12, and the valve 40 represents the transport unit. In addition, D3 anticipates the novelty of claim 12, since D3 equally discloses two different vessels, that is to say gas-treatment reactors 1 and 10, between which according to fig. 1 is connected a transport pump (see references cited in the search report).

In addition, the inventive step of claim 1 appears, moreover, to be questionable in light of the disclosures in D2 and D3 (EPC Article 56). Although the feature of a dry matter proportion of 3-7% by weight in the untreated sludge is not explicitly mentioned in D2 or D3, it must, however, be assumed that the prior art proceeds from sludge having at least similar dry matter proportions. Also it has not been demonstrated that the selection of this

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Box No. V

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interval for the dry matter proportion demonstrates
a surprising technical effect.

3. Dependent claims 2-11 and 13-15 do not contain any features which, in combination with the features of any claim to which they refer, meet the PCT requirements for novelty and inventive step, see documents D1-D4 and the corresponding text passages cited in the search report. For the feature of claim 11, no technical effects have been described which would justify an inventive step.

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/EP2006/061725

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

The application does not meet the requirements of PCT Article 6 because claims 5 and 7 are not clear. Claim 5 establishes a difference in time of up to 12 h between two charges of the first stage. It appears unclear how under this circumstance the method according to independent claim 1 can still be defined as "semicontinuous" or even "continuous". The same objection applies to claim 7, which also depends on claim 1. In addition, it is unclear in claim 7 to what the expression "introduction" refers (into which stage?).